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THICKENING GELS

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(56) Prior Art Documents
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(57) For the cleaning of hard surfaces and objects, particularly in industrial, institutional and catering environments, there is a need for detergent products which can be applied over a wide area and which clean upon immediate and/or prolonged contact with the surface to be cleaned, before being removed.

We have now found that this can be achieved by using a liquid detergent composition which undergoes a viscosity increase upon aqueous dilution.

The advantage in such a composition according to the invention is that prior to dilution, it can be a readily mobile liquid which is convenient for transport etc., but when diluted to working concentration, it starts to thicken to a syrupy or gel-like consistency, which means that it will remain in contact with the surface or object to be cleaned, for sufficient time to enable the required cleansing to occur.

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CLAIM

1. An aqueous detergent composition substantially free of bleach compounds which undergoes a viscosity increase upon dilution with water to a typical working concentration for spray-cleaning of from about 5 to about 15% by weight of the composition in water comprising:
 - (a) from 0.1 to 10% by weight of one or more primary cationic surfactants selected from the group consisting of amine, amine oxide, betaine and quaternary ammonium surfactants;
 - (b) from 0.05 to 5% by weight of one or more anionic surfactants selected from the group consisting of alkali metal salts of polyalkoxylated alkyl and arylalkyl sulphates and sulphonates in which the alkyl moiety has from 12 to 16 carbon atoms, and anionic hydrotropes for the one or more primary cationic surfactants;
 - (c) from 0.01 to 30% by weight of one or more water-soluble or water-miscible non-surfactant compounds which are ionisable in water, and selected from the group consisting of organic and inorganic acids, salts thereof and alkaline materials;
 - (d) not more than 10% by weight of an auxiliary surfactant material other than (a) and (b); comprising nonionic or anionic surfactants;
 - (e) from 1 to 10% by weight of a water-miscible organic solvent;
 - (f) the balance being substantially water.
12. A method comprising diluting a composition according to any preceding Claim, with water or an aqueous vehicle, to a concentration at which the viscosity thereof is increased, and applying the composition thus diluted to a target surface.